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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,154	11/28/2001	Michael Cole	602-1475.1	4000

7590 07/30/2004

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EXAMINER

GORDON, BRIAN R

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/997,154	Applicant(s) COLE, MICHAEL	
	Examiner Brian R. Gordon	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4-2-04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4-2-04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/508,215.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/508,215 filed on March 08, 2000.

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

1. The drawings were received on April 2, 2004. These drawings are approved by the examiner.

Response to Arguments

2. Applicant's arguments filed April 2, 2004 have been fully considered but they are not persuasive. Applicant states in the remarks "Regarding the rejections under 35 U.S.C. 112 in numbered sections 7 through 9, claims 61 and 62 have been cancelled, obviating any problems regarding them. Claim 63 has been replaced by new claim 67, which is in accordance with the suggestions of the examiner." Applicant has misunderstood the previous comments made by the examiner in the previous office action. The examiner **did not** make any suggestions for amending the claims. The examiner did however provide comments on how the claims were being interpreted for

the purpose of examination since the original claims were not drafted in a clear and concise manner for the examiner to determine what elements applicant intended to claim as components of the invention. Applicant adopted the examiner's interpretation, which the previous claim rejections were based upon, as new claim 67 as such the new claims are rejected based upon the same reasoning.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 64-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

While applicant has adopted the examiner's previous interpretation as a literal draft for claim 67 it remains unclear which elements applicant intend to be considered as elements of the invention.

Does applicant intend for the device to include plurality of trays and plurality of sample plates, to be considered as elements of the invention?

The mentioned elements above are not positively claimed as elements of the invention in claim 67. The elements are referred to within the claims within the context of functionality and intended use of elements of the device as well as the device as a whole.

For the purpose of examination the plurality of trays and sample plates are not considered as elements of the invention; however it is required that a device be capable of supporting trays.

The examiner fails to the specific mentioning of the term "frame" within the specification. Therefore it is unclear how applicant intends to structurally define "the frame". If the term has not been specifically defined in the specification, the claims must be amended to clearly define the invention in relationship to the defined terms used. For the purpose of examination, the examiner assumes that the "frame" is actually the "base and ends 29, 30, and 32" (as given on page 17, second complete paragraph).

3. The terms "highly conductive" and "high thermal conductivity" in claims 67 and 65, respectively are a relative terms which renders the claim indefinite. The terms "highly" and "high" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. There is no numerical range or value given for one to interpret on clearly ascertain what is one considers as "high".

4. Claim 65 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 65 references elements not positively claim and attempts to further limit claim 67 by further modifying unclaimed elements (samples plates and trays) not considered as elements of the

invention. In order for claim 65 to be further limiting the sample plates and trays should be positively recited as elements in claim 67.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 64-65 and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Guy et al. US 5,217,572.

Guy et al. disclose a centrifugal evaporator-concentrator that includes a central tubular pivot (18) surmounted by a nozzle (35) and constituting the pivot axis of a rotor (9)(means for rotating) rotating in a vessel (8) closed by a cover (11) (establishes a chamber). With the rotor rotating in the partial vacuum created by a vacuum pump (33), a small quantity of gas or air is temporarily and periodically admitted into the vessel, this gas being heated by a heating resistor (38) (heating means) inside the vessel for the purpose of heating by **conduction** (inherently implies that the frame is made of conductive material) the specimens to be concentrated and of accelerating the rate of evaporation.

it is also preferred that a source of heat, for example an **infrared** ray element disposed in facing relation to the gas orifice and plates.

The rotor 9 comprises a hub 17 which is pivotal about a vertical tubular pivot 18 with interposition of self-lubricating bushes 19. The lower bush 19 is mounted on a horizontal circular fixed bearing surface so as to maintain the rotor in a vertical position. The hub of the rotor carries a number of plates 20, 21, 22, (frames) defining, as shown in FIG. 2, oblong openings 23 all disposed in the conventional manner for receiving in

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an inclined position specimen-carrying test tubes 24,25. This arrangement of the plates is conventional and will not be described in more detail.

While Guy et al. do not specifically mention sample trays and plates, the claim only requires that the device be capable of supporting trays and plates. As such one of ordinary skill in the art would recognize that plates and trays of the appropriate dimensions may be mounted and anchored in the oblong openings of the plates (frames).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claim 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanaway US 4,643,879.

Hanaway discloses tower assembly for supporting a plurality of specimen trays for use in an automated analyzing system such as incubator. Each specimen tray comprises a container tray for holding a plurality of specimens. The tray assembly 17 is comprised of a container tray 18 (microtitre plate) having a plurality of microcuvettes 19 arranged in a spaced apart grid-like pattern. The container tray 18 is best shown in FIG. 3. A cover member 20 is adapted to seat over a top surface 21 of the container tray 18. Referring again to FIG. 2, it is apparent that the tray support tower 11 is adapted to support a plurality of tray assemblies 17. The exact number of tray assemblies 17 may be set as desired. Each tray tower 11 is readily removable from the automatic specimen analyzing system 10 by loosening tie down bolts 34. This allows the tray tower 11 to be releasably connected to the automatic specimen analyzing system.

Each tray assembly 17 rests upon a shelf 35 (tray) which is slidably supported so that it is removable in a first slot 36 in each of a first sidewall 37 and a second side wall 38 (frame) of the tray tower. The slots 36 extend in a spaced apart, generally parallel, manner from a first open face 39 in the plane of the drawing to a second open face (not shown) behind the first open face 39. The slots are closed at an end adjacent one of the open faces as will be described in greater detail hereinafter. Each of the shelves 35 is removably supported in the first slots in each of the first and second side walls 37 and 38 to provide a spaced apart parallel and overlapping array of shelves 35 with the spaces between the shelves being adapted to receive the specimen tray assemblies 17.

If it is desired to sterilize the tray tower, the specimen tray assemblies 17 are removed from the tower. The shelves 35 can also be removed from the tower and sterilized if desired. The tower itself which comprises essentially the **frame** comprising top and bottom portions 45 and 46 and side walls 37 and 38, can then be sterilized also.

Hanaway does not specifically recite that the frame and trays are formed from aluminum or copper.

It would have been obvious to one of ordinary skill in the art to recognize that the incubation analysis system of Hanaway may comprise an aluminum frame and trays. It is well known and conventional in the art to use metals such as aluminum to manufacture incubation systems for the material is allows for heat to be efficiently distributed to samples in the containers.

6. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guy et al. as applied to claims 64-65 and 67 above, and further in view of Titcomb et al. US 6,004,512.

Guy et al. does not explicitly teach the frames (in particular) and trays are formed from aluminum or copper.

While it is conventional and well known in the art that aluminum and copper are readily used to manufacture components to be used to conduct heat, Titcomb et al. disclose a slide cartridge heating block in which plates 12, 14 and 16 (which support cartridges to be heated) comprise different materials, plates 12 or 14 may include any material having a relatively high thermal conductivity, such as aluminum, copper or silver.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Guy et al. by manufacturing the plates from aluminum or copper in order to maximize the heat transferred to the sample containers supported on the plates.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sasaki, Tadashi; Copeland, Keith G. et al.; Odakura, Masaaki et al.; Watari, Shigenori et al.; Cole, Michael; Shalon, Tidhar Dari et al.; Clark, Alexander W. et al.; Bogen, Steven A. et al.; Lautenschlager, Werner; Long, Ernest W.; Mochida, Ei et al.; and Meeks, Warren et al. disclose rotary heating devices.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

brg


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